



# Oil & Gas Industry Day 2021

February 23, 2021



# Oil and Gas Production/Water Disposal

Discount Rate

# Cap Rate Variables

- Comparable Companies
- Capital Structure
- Debt Rate
- Equity Rate

\*All data is now taken from 10k statements and tear sheets. Rates and figures are subject to change as newer information becomes available. All 2021 rates are currently estimated.

# Comparable Companies

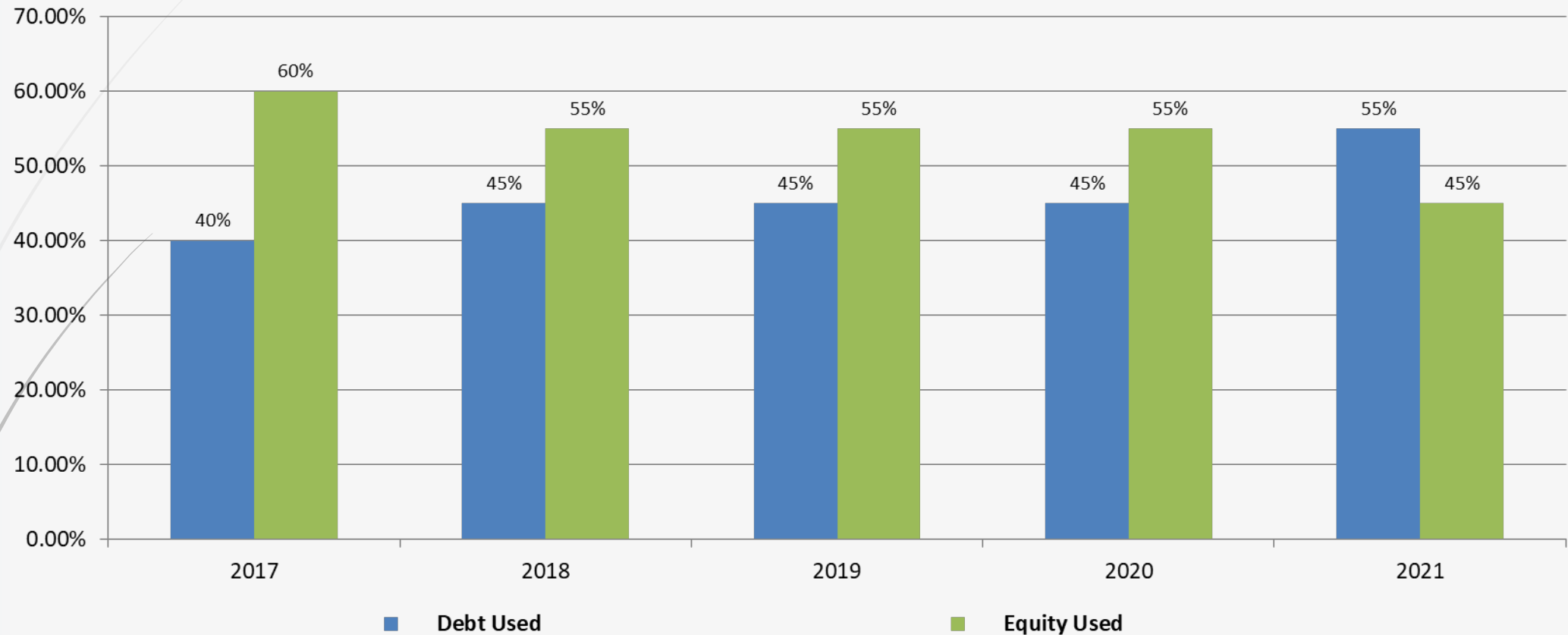
## 2020

- ABRAXAS PETROL
- BLACK STONE MINERALS
- CALLON PETROLEUM
- CONTINENTAL RESOURCES
- **DENBURY RESOURCES**
- DEVON ENERGY
- HIGHPOINT RESOURCES CORP
- PIONEER NATURAL RES.
- QEP RESOURCES
- RING ENERGY
- ROYALE ENERGY INC
- SM ENERGY CO
- SOUTHWESTERN ENERGY
- WHITING PETROLEUM
- **WPX ENERGY**

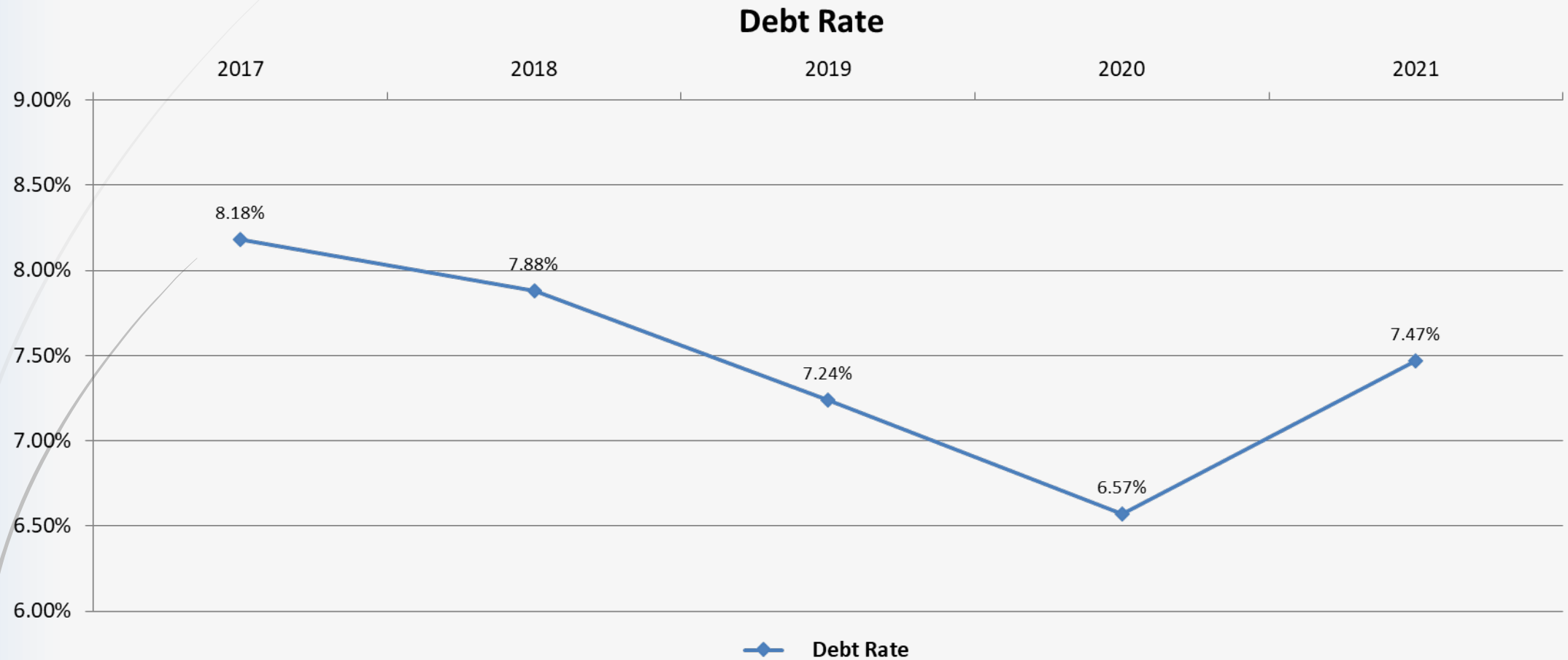
## 2021

- ABRAXAS PETROL
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# 5 Year Capital Structure History

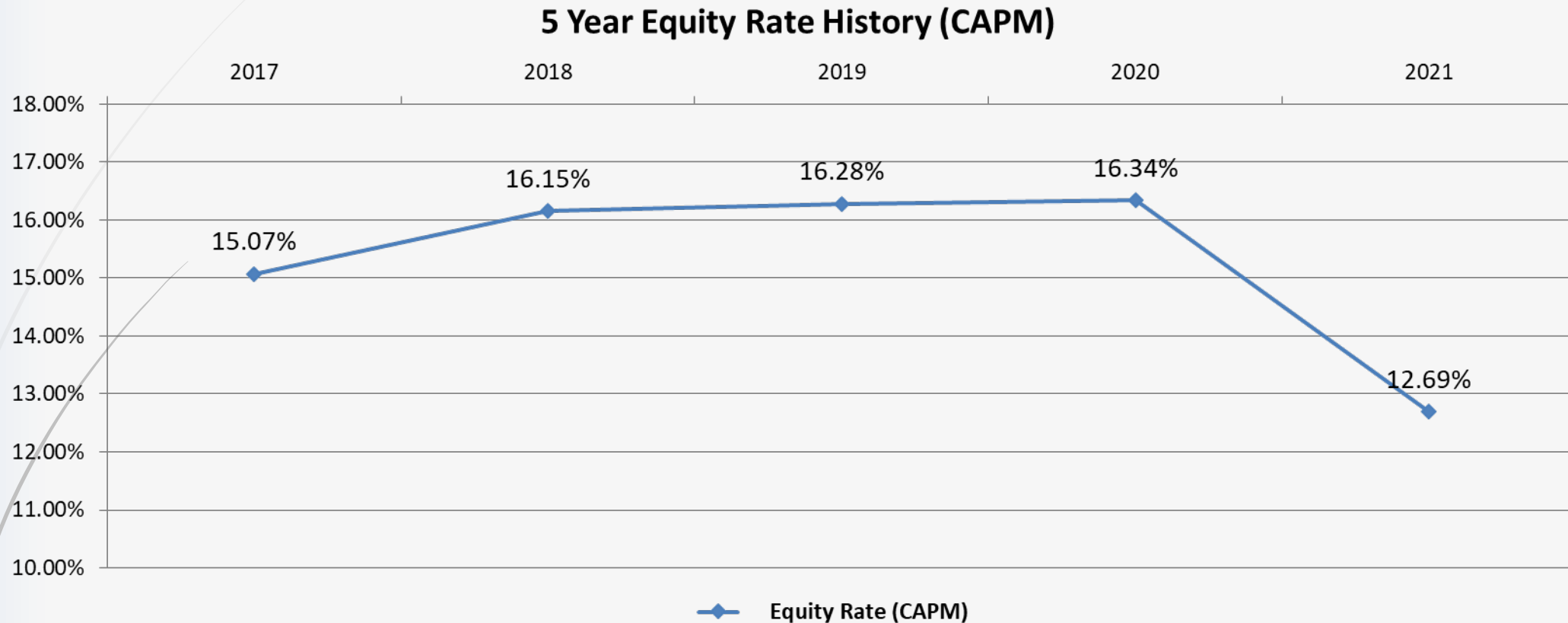


# 5 Year Debt Rate History



\*Average of comparable company debt ratings

# 5 Year Equity Rate History



\*Reconciled equity rate weighted for calculation method

$$\text{CAPM} = R_f + \beta(R_m - R_f)$$

## Production/WD Discount Rate

# Weighted Average Cost of Capital Discount Rate Calculation

|           | Rate   | Capital Structure | Weighted Rate |
|-----------|--------|-------------------|---------------|
| Debt (B1) | 7.47%  | 55%               | 4.11%         |
| Equity    | 12.69% | 45%               | 5.71%         |
| WACC      |        |                   | <b>9.82%</b>  |





# Oil and Gas Gathering

Discount Rate

# Comparable Companies

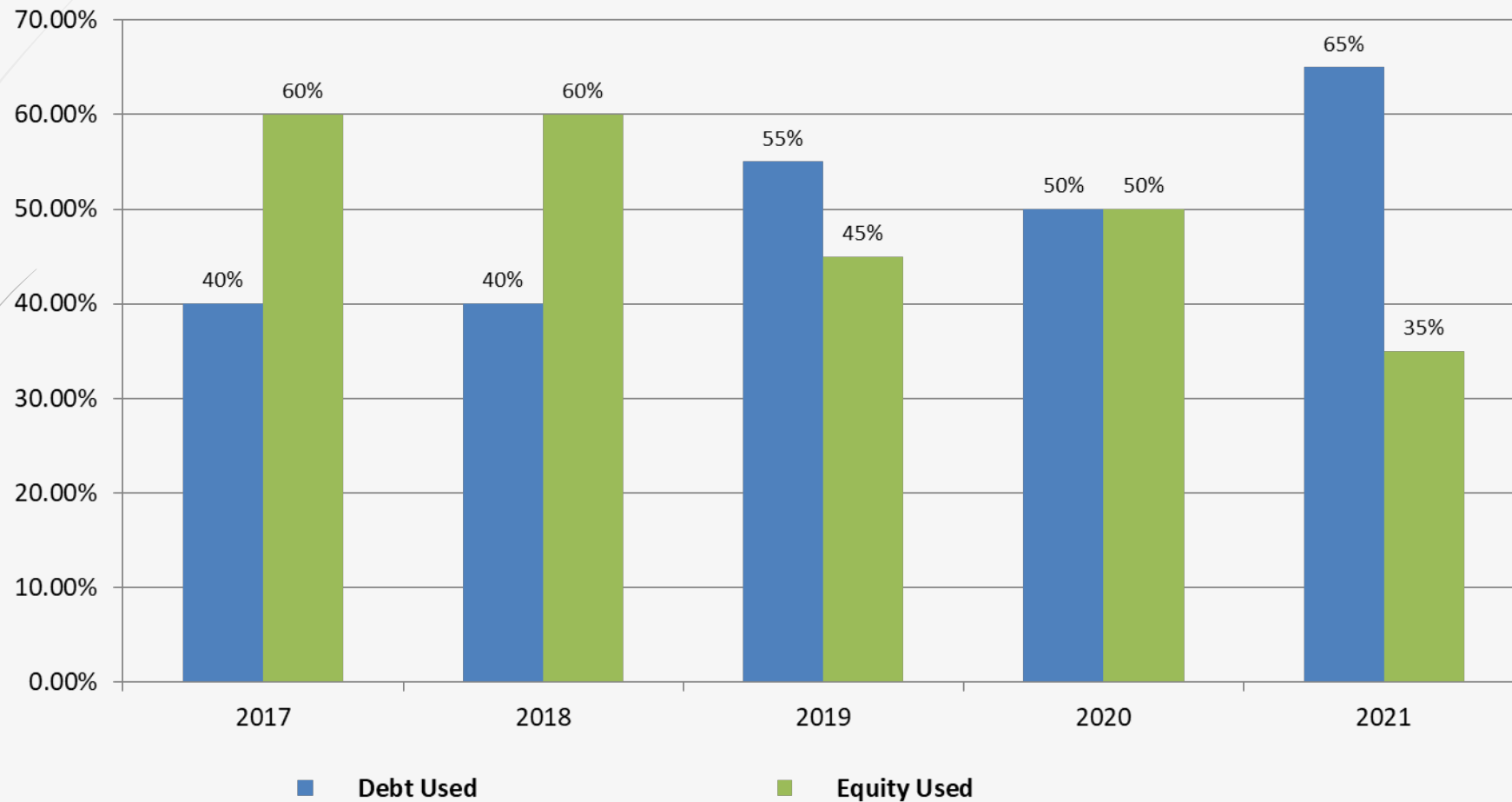
2020

- Crestwood Equity Partners Lp
- Energy Transfer Lp
- Holly Energy Ptrs.
- Plains All Amer. Pipe
- Summit Midstream Partners Lp
- Tallgrass Energy Lp
- Western Midstream Part.
- Williams Cos.

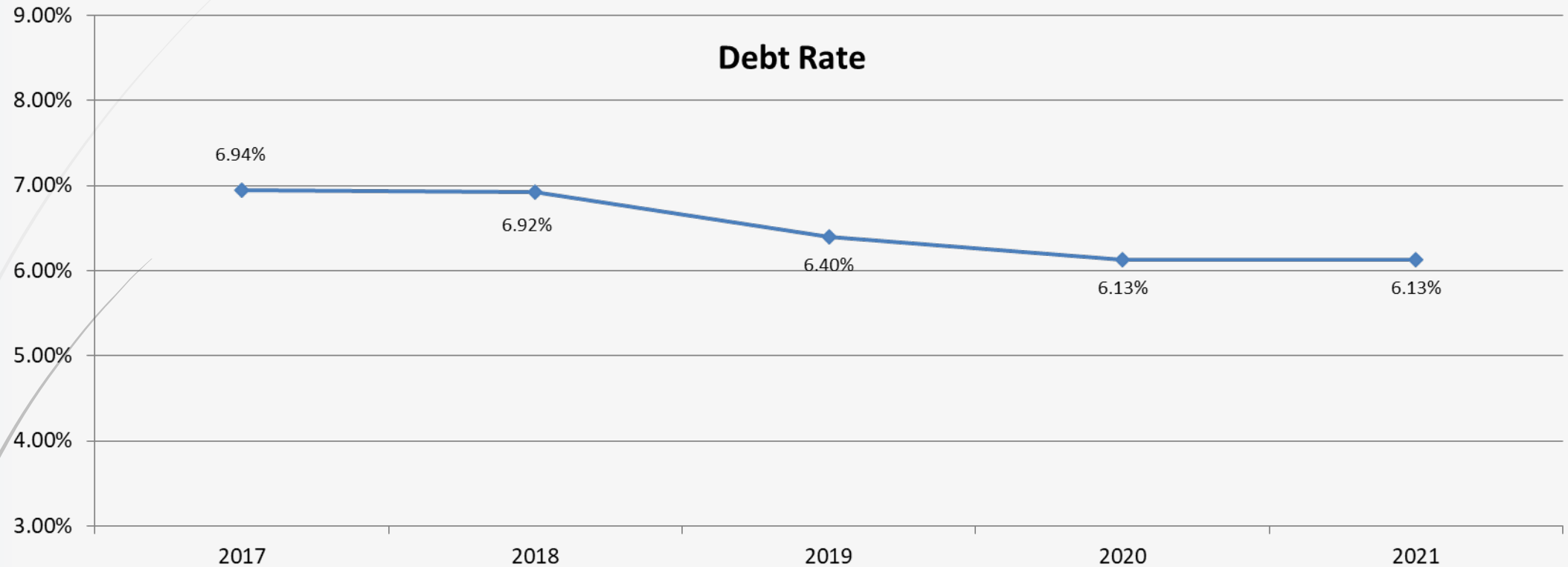
2021

- Crestwood Equity Partners Lp
- Energy Transfer Lp
- Holly Energy Ptrs.
- Oneok, Inc.
- Plains All Amer. Pipe
- Summit Midstream Partners Lp
- Western Midstream Part.
- Williams Cos.

# 5 Year Capital Structure History

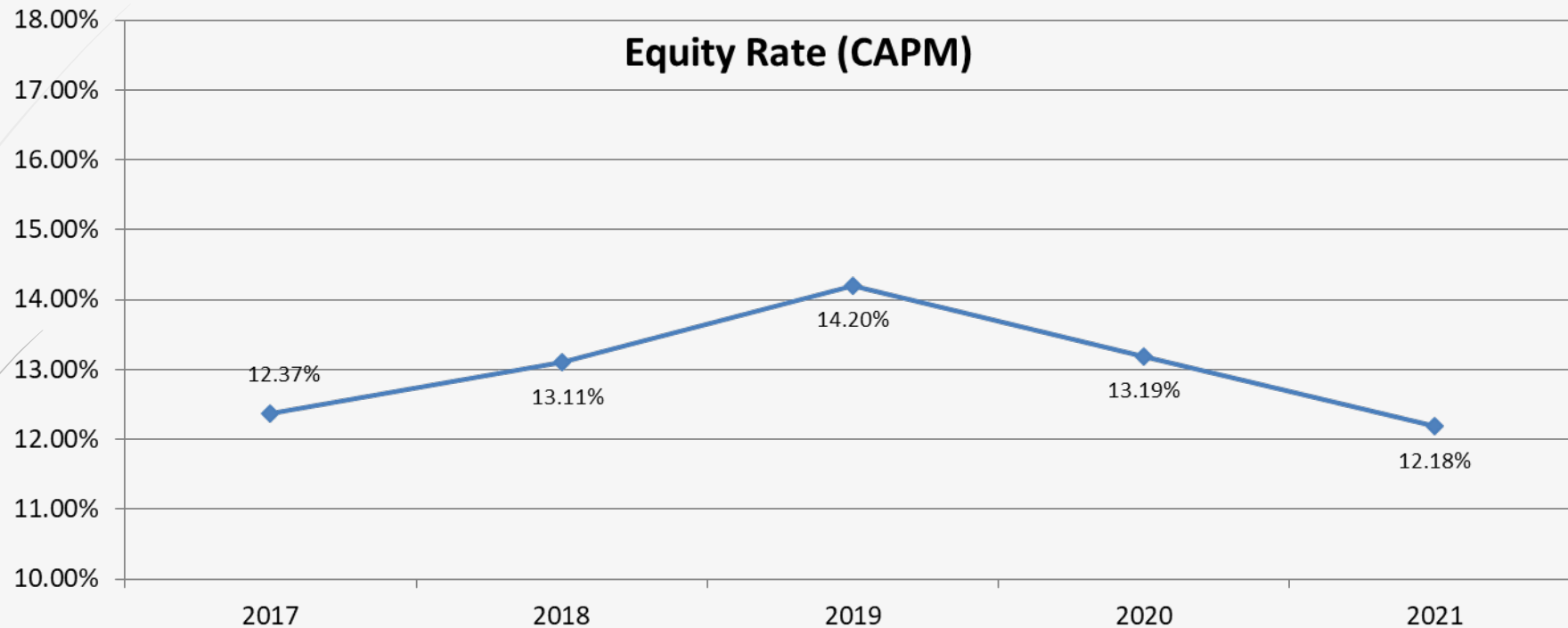


# 5 Year Debt Rate History



\*Average of comparable company debt ratings

# 5 Year Equity Rate History (CAPM)



\*Reconciled equity rate weighted for calculation method

$$\text{CAPM} = R_f + \beta(R_m - R_f)$$

# Oil and Gas Gathering Discount Rate

## Weighted Average Cost of Capital Discount Rate Calculation

|            | Rate   | Capital Structure | Weighted Rate |
|------------|--------|-------------------|---------------|
| Debt (Ba2) | 6.13%  | 65%               | 3.98%         |
| Equity     | 12.18% | 35%               | 4.26%         |
| WACC       |        |                   | <b>8.25%</b>  |



# Natural Gas Price Forecast 2021

# Natural Gas Price Forecast

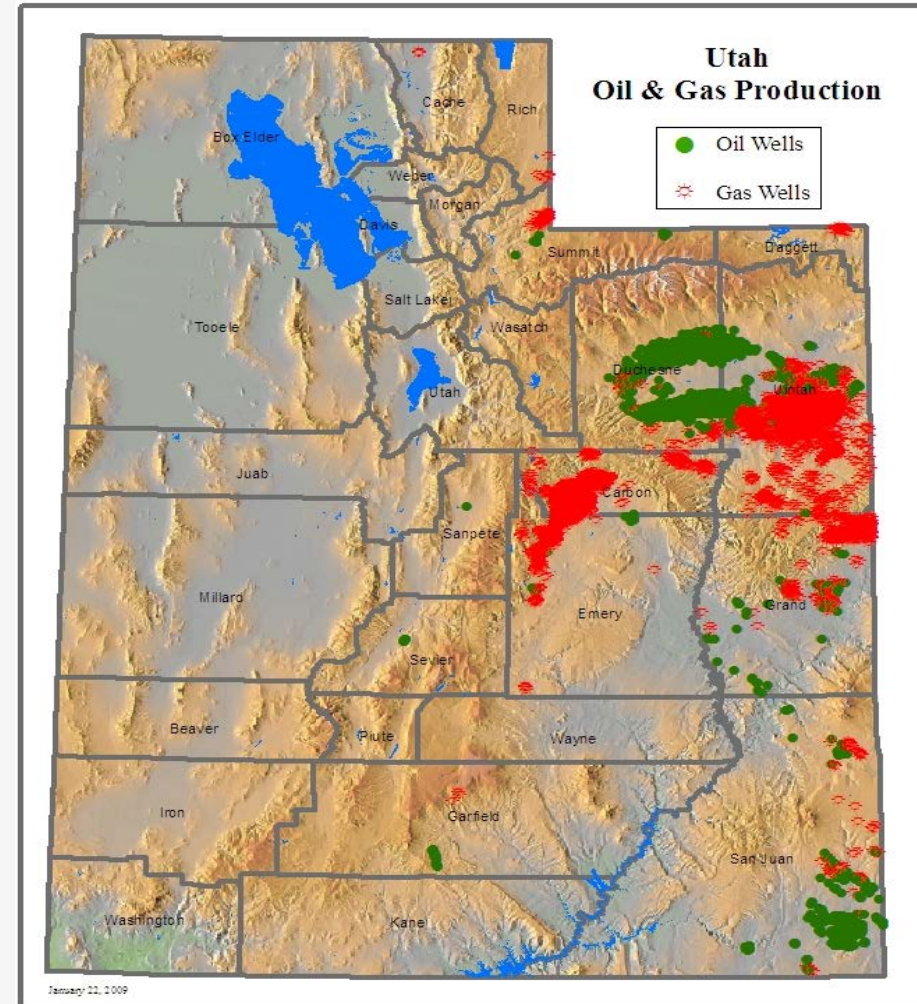
## ■ Gas Product Price

- If sold under contract, the price shall be the stated price as of January 1, adjusted for escalation and de-escalation
- If sold on the spot price market or to a direct end-user, the price shall be the average price received for the 12-month period immediately preceding January 1, adjusted for escalation and de-escalation



# Natural Gas Pricing Factors

- Data Analysis:
  - Supply
  - Demand
  - Drilling
  - Production
- Other Variables
  - Weather
  - Economy



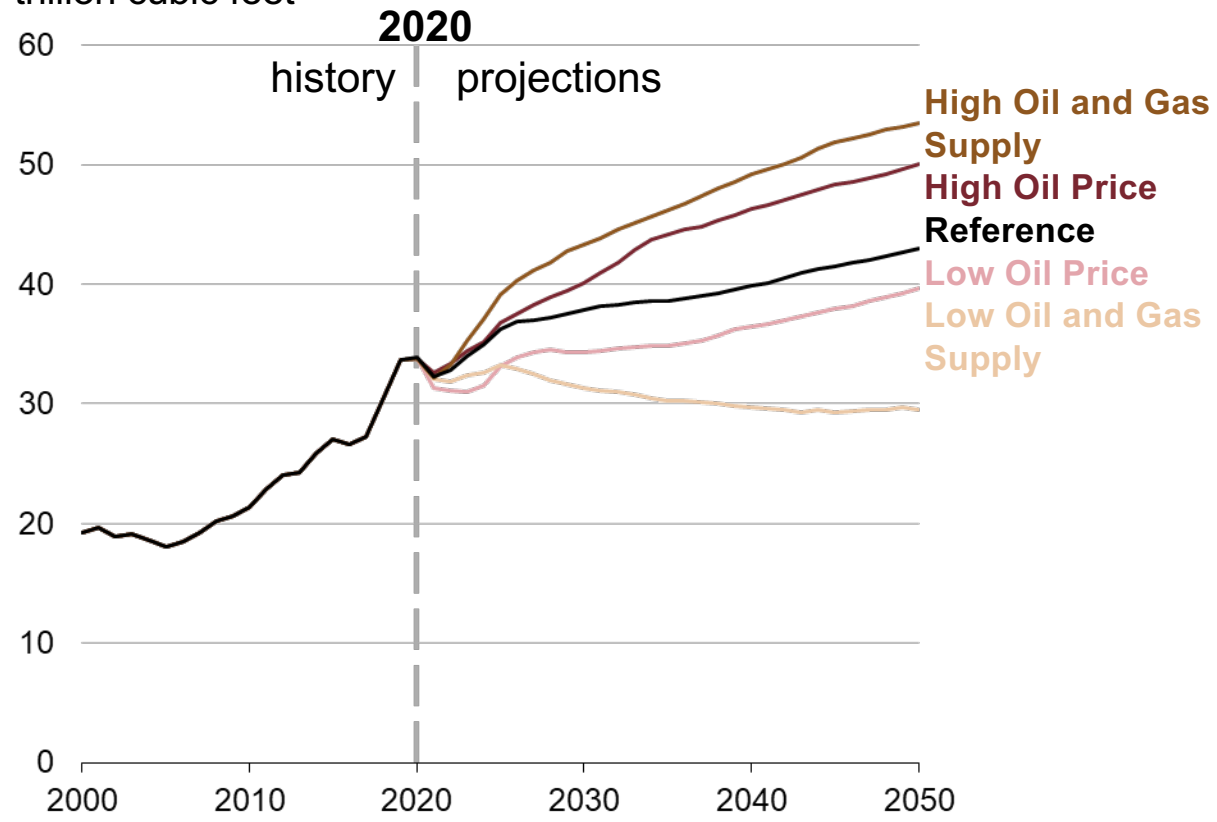


# U.S. dry natural gas production and consumption

## U.S. dry natural gas production

**AEO2021 side cases**

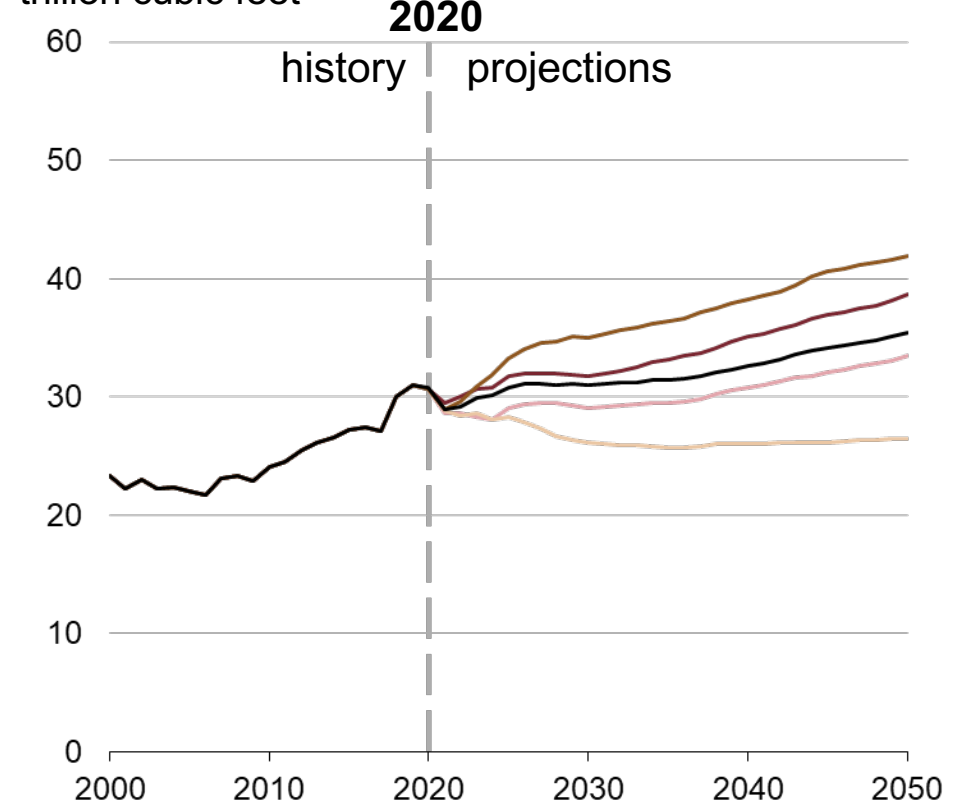
trillion cubic feet



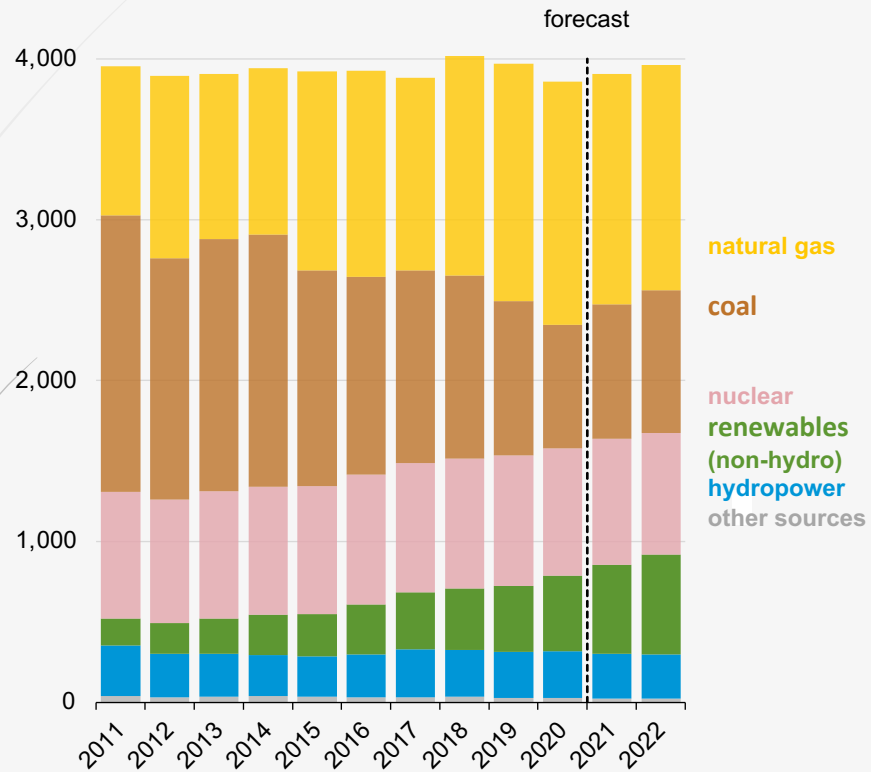
## U.S. natural gas consumption

**AEO2021 side cases**

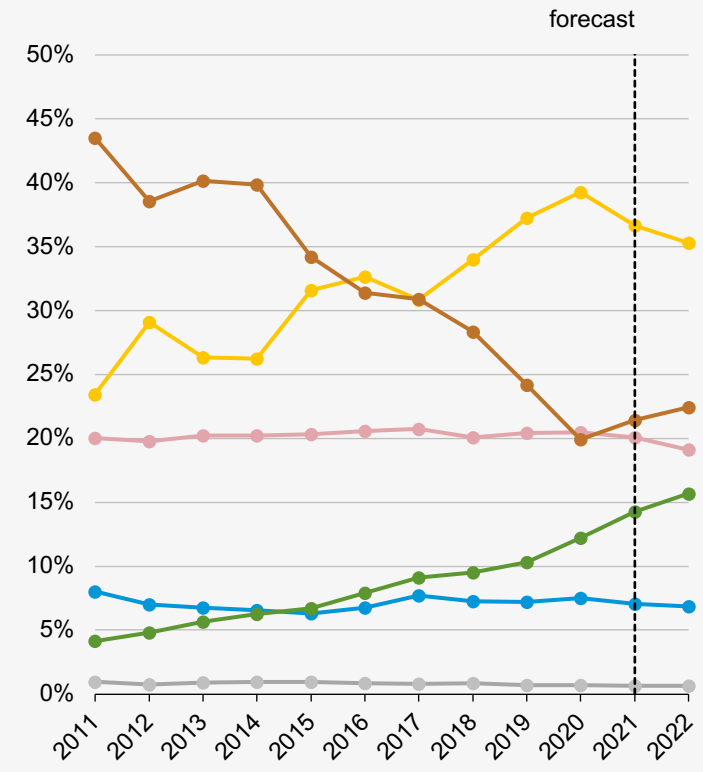
trillion cubic feet



**U.S. electricity generation by fuel, all sectors**  
billion kilowatthours



percent share



# 2020 Utah- Current Gas Well Count

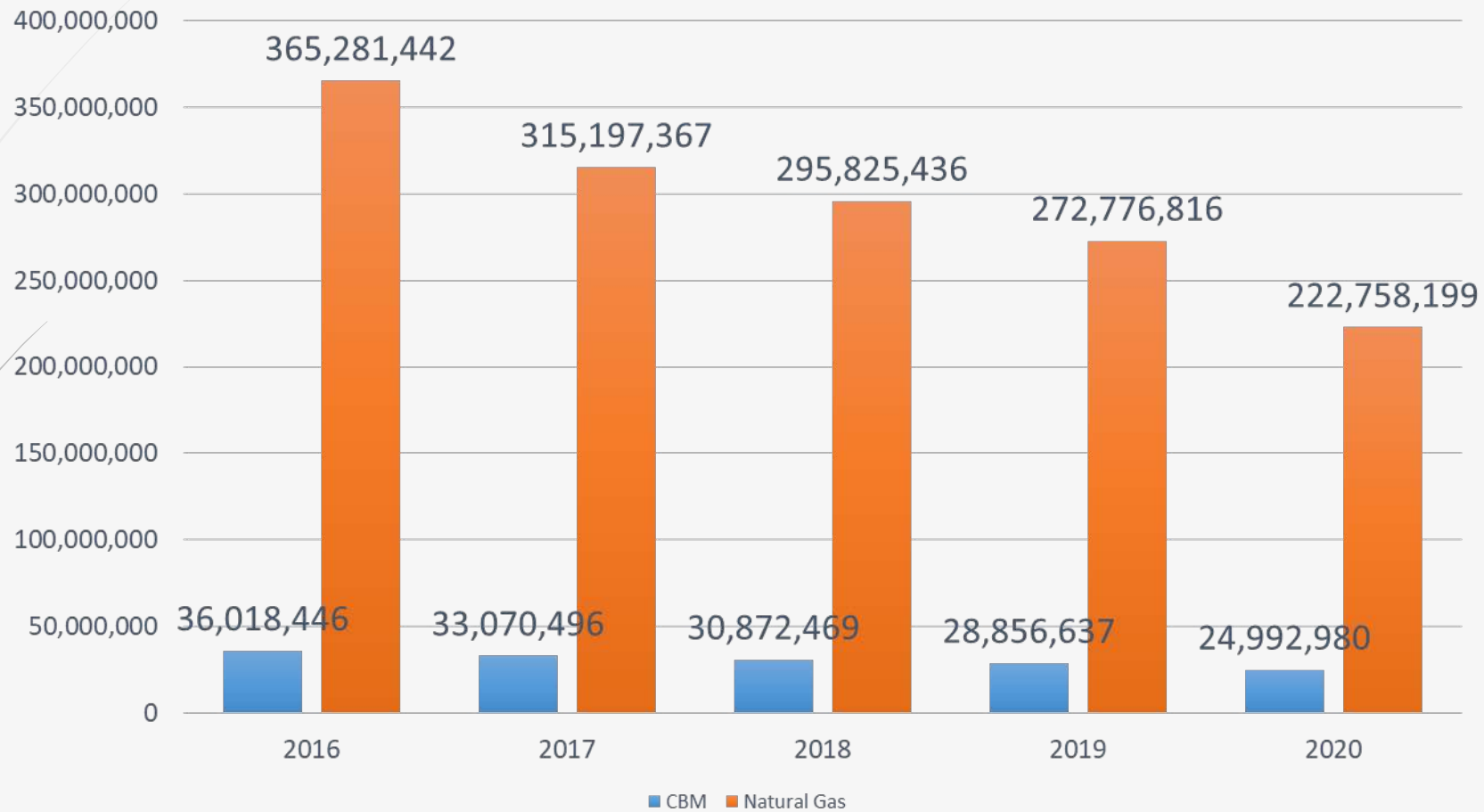
| Utah Gas Wells Plugged by Year |      |      |      |
|--------------------------------|------|------|------|
| 2017                           | 2018 | 2019 | 2020 |
| 56                             | 85   | 123  | 102  |

| 2020 Drilling |     |
|---------------|-----|
| Oil           | Gas |
| 37            | 0   |

| Current Utah Gas Well Count |      |
|-----------------------------|------|
| Producing Gas Wells         | 6064 |
| Shut-in Gas Wells           | 1562 |
| Total                       | 7626 |

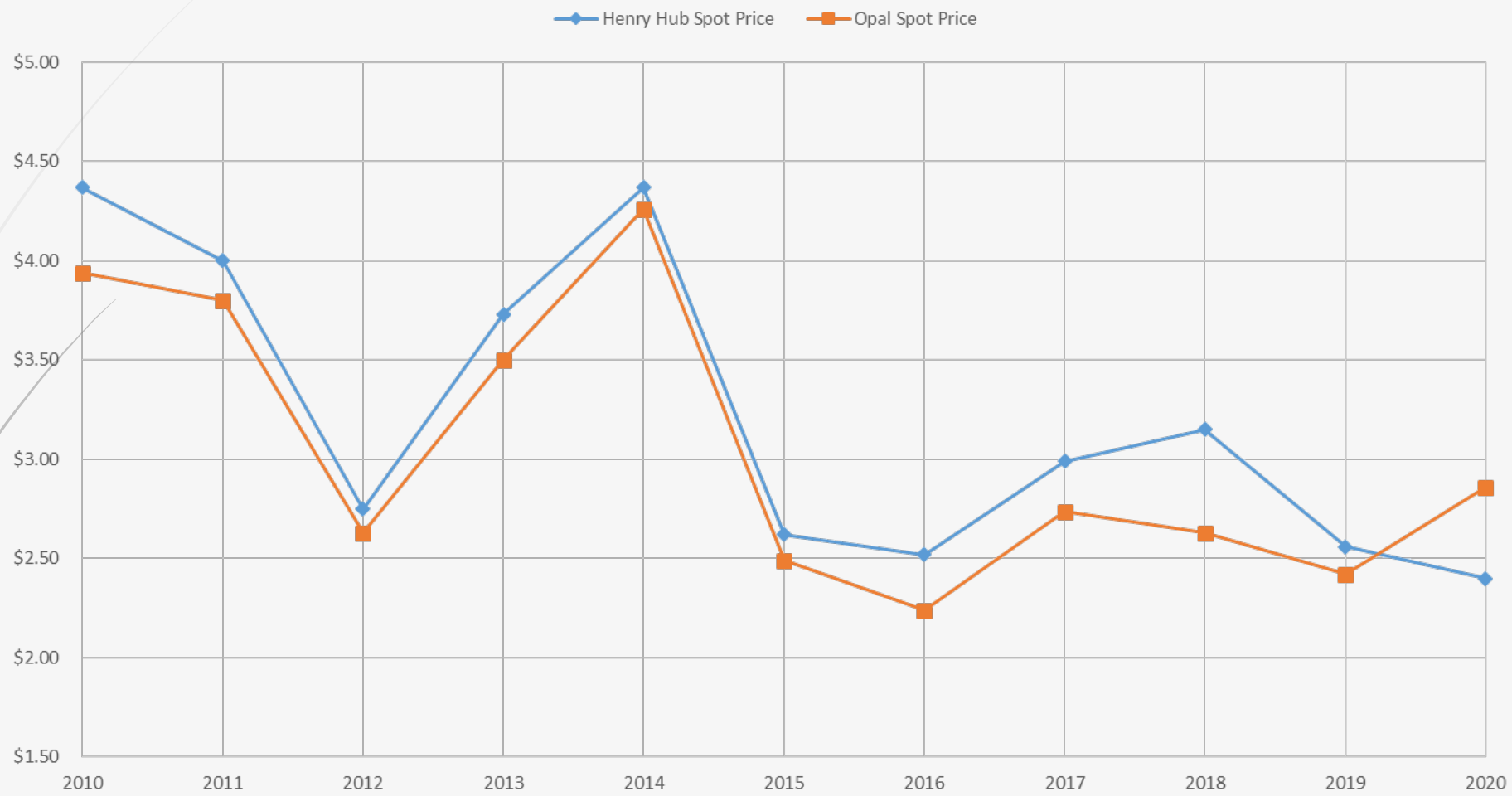
Source- DOGM (Feb 2021)

## 2016-2020 Utah Natural Gas and CBM Production

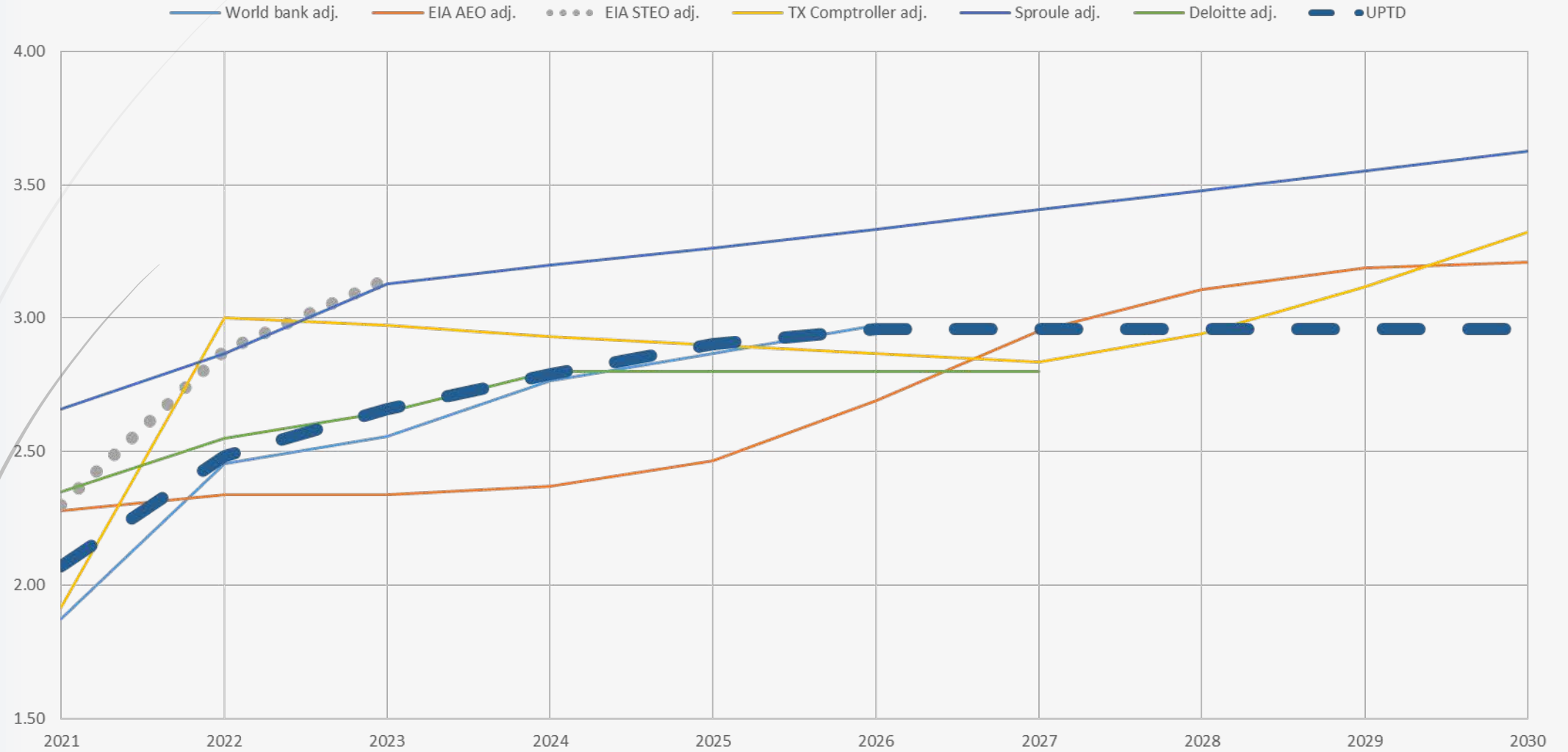


Source- DOGM (In thousands, 2020 is annualized)

## HENRY HUB AND OPAL SPOT PRICE



## 2021 GAS PRICE FORECAST ADJUSTED TO OPAL, WYOMING



# 2021 Gas Price Forecast

| Year        | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|-------------|------|------|------|------|------|------|------|------|------|------|
| Start Price | 2.07 |      |      |      |      |      |      |      |      |      |
| Forecast    |      | 2.48 | 2.66 | 2.80 | 2.90 | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 |
| % Change    |      | 20%  | 7%   | 5%   | 4%   | 2%   | 0%   | 0%   | 0%   | 0%   |





# Oil Price Forecast 2021

# Disclaimer

- Forecasted numbers are opinions of value and are subject to significant economic factors unknown or not reported as of January 1, 2021

“The oil market is especially sensitive even to a hint of expansion or contraction in supply.”

James Surowiecki

# 2020 Highlights

## Global supply

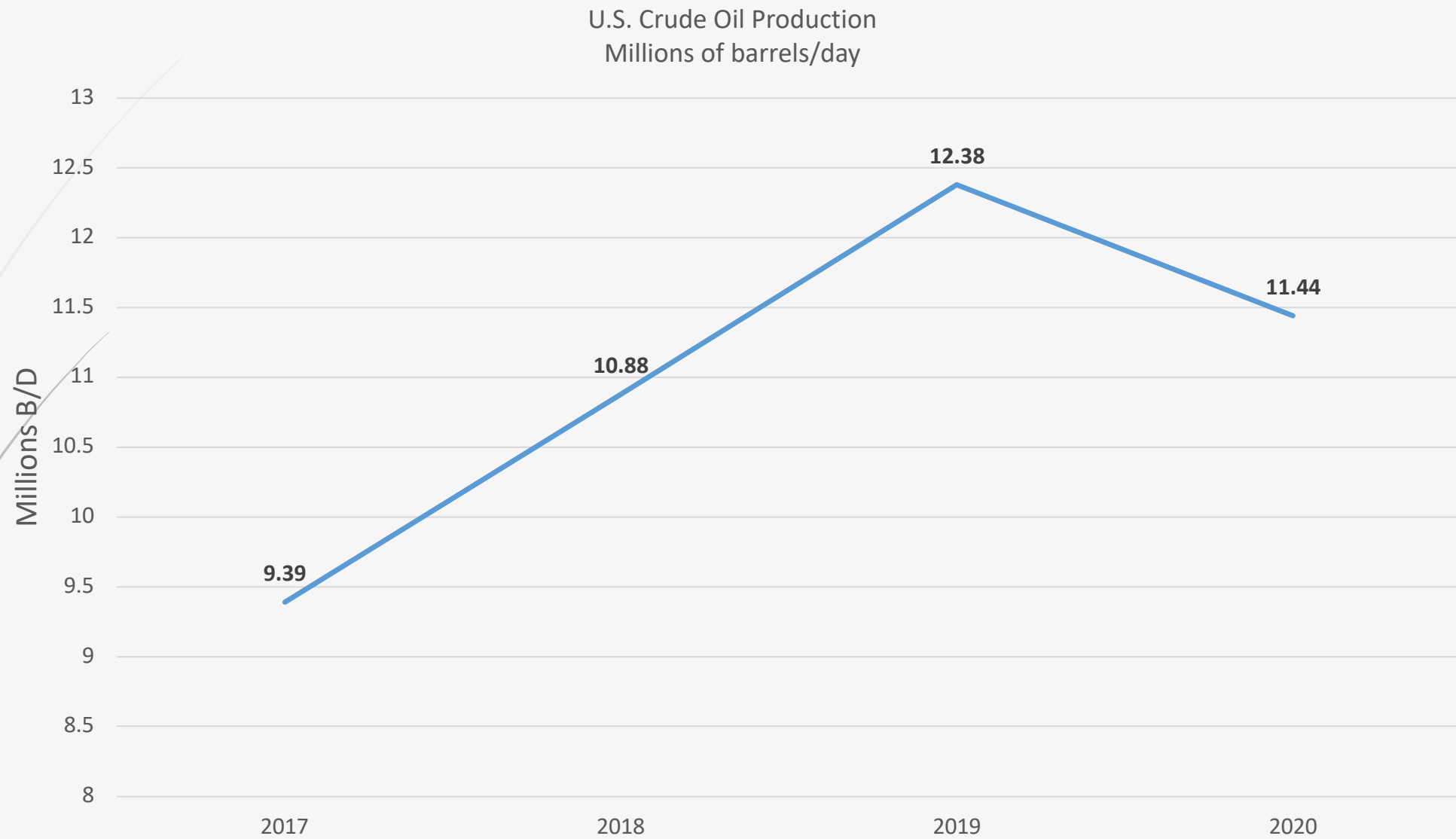
- Estimated OPEC production avg 25.6 million b/d in 2020

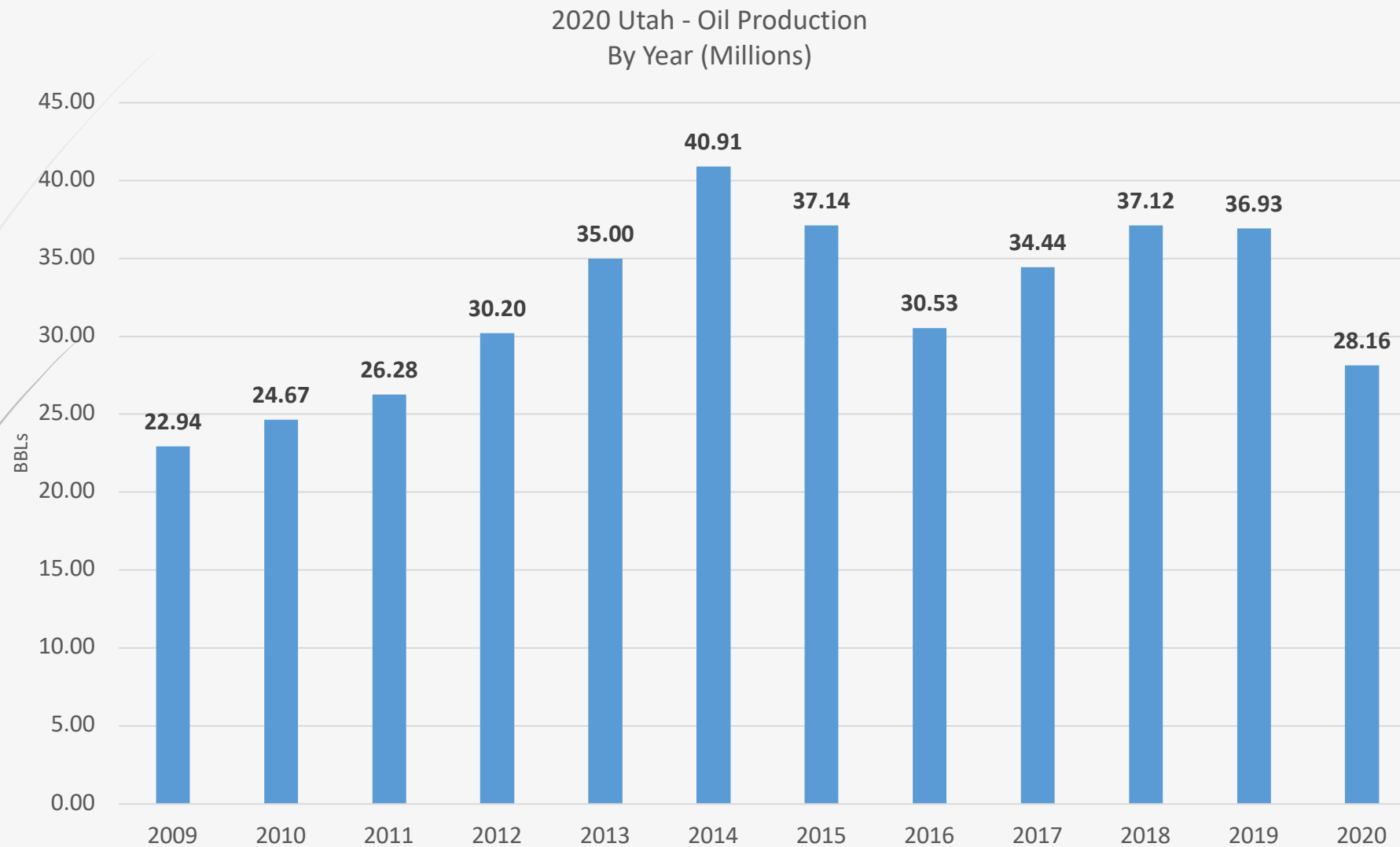
## WTI-Brent

- Brent crude oil spot price averaged \$41.69/bbl
- WTI averaged \$39.17/bbl
- WTI-Brent differential averaged \$2.52/bbl

## US oil production

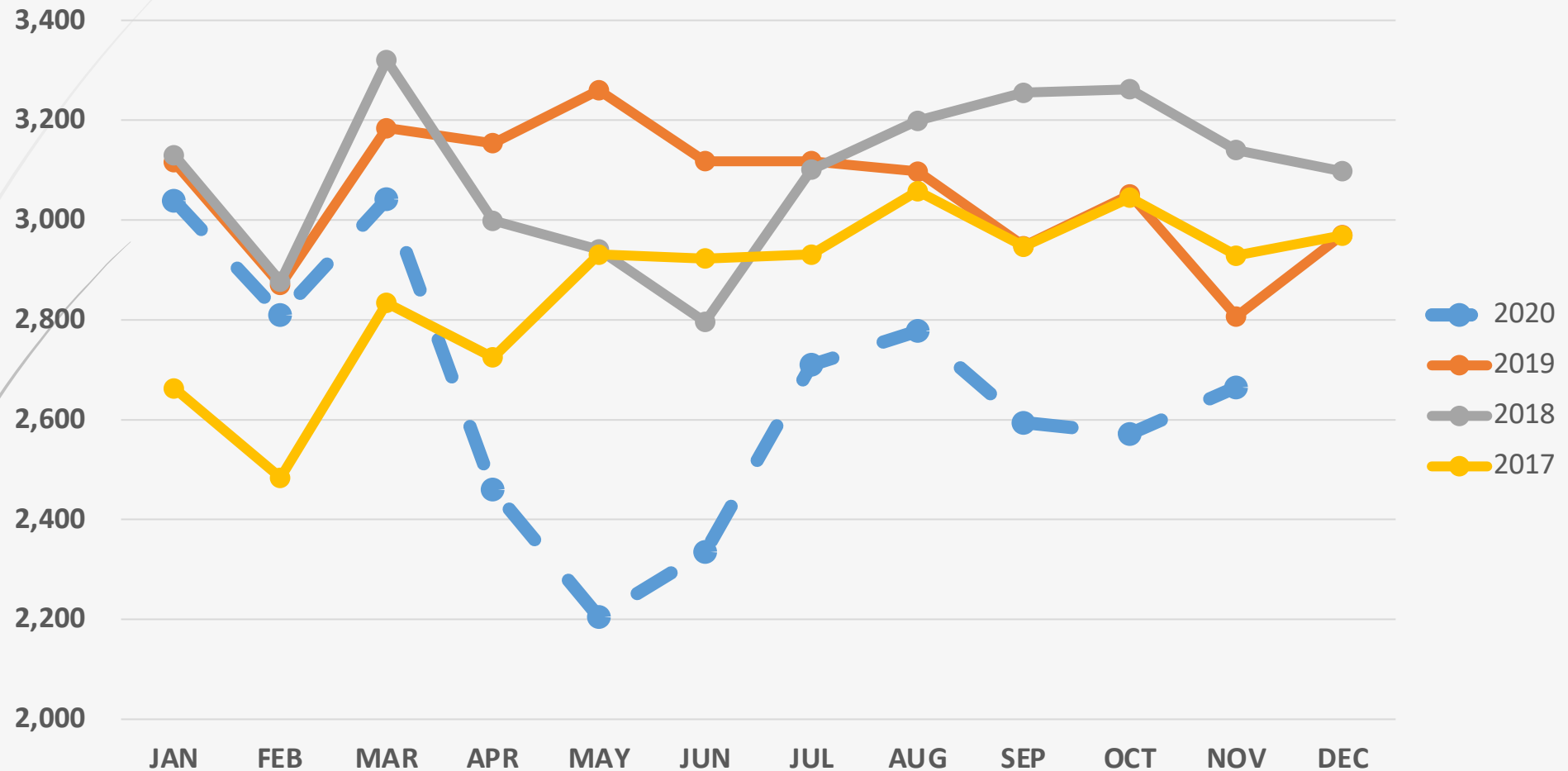
- Fell from 12.38 Mil b/d to 11.44 Mil b/d in 2020
- EIA forecasts a small decrease in 2021 and then increase to 11.5 mil b/d in 2022





\*2020 information complete through November

### 2020 Utah - Oil Production By Month in Thousands of barrels



\*2020 information complete through November

# 2021 Expectations

## Supply

- Global Increase from declined supply of 2020
- Increased supply will be abated by increased demand

## Demand

- Increase globally

## U. S. Production

- U.S. production expected to increase





**R884-24P-10**

“Product Price”

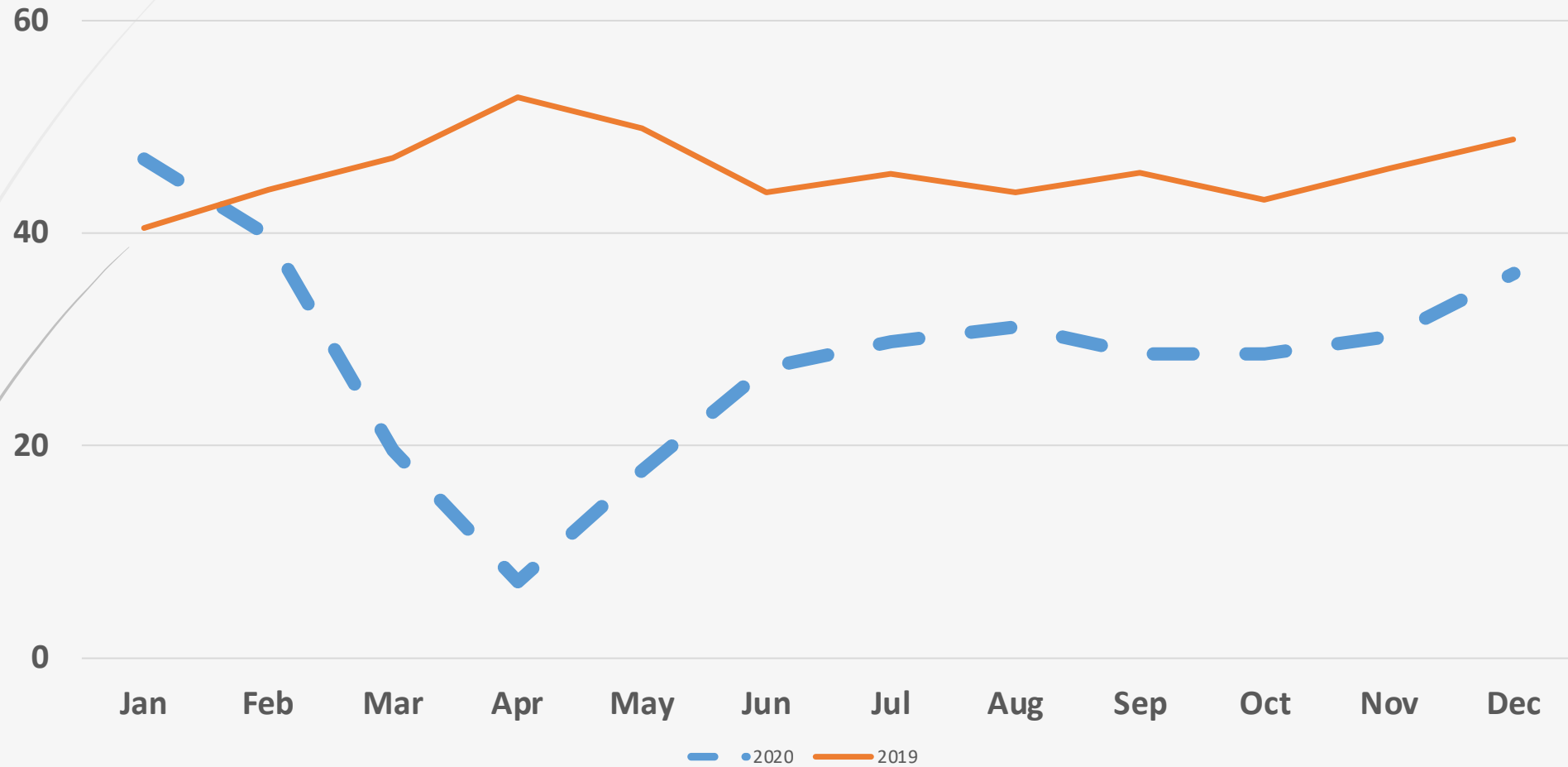
- Starting price is the weighted average posted price of the previous year

## Paradox Basin/Sweet – “Marathon”

|   | Posting | 2019    | 2020           | %      |
|---|---------|---------|----------------|--------|
| Month                                     | Days    | Price   | Price          | Change |
| January                                   | 31      | \$40.48 | \$46.98        | 16%    |
| February                                  | 29      | \$44.07 | \$39.75        | -10%   |
| March                                     | 31      | \$47.09 | \$19.60        | -58%   |
| April                                     | 30      | \$52.79 | \$7.20         | -86%   |
| May                                       | 31      | \$49.89 | \$17.69        | -65%   |
| June                                      | 30      | \$43.86 | \$27.37        | -38%   |
| July                                      | 31      | \$46.50 | \$29.76        | -36%   |
| August                                    | 31      | \$43.84 | \$31.19        | -29%   |
| September                                 | 30      | \$45.68 | \$28.63        | -37%   |
| October                                   | 31      | \$43.13 | \$28.63        | -34%   |
| November                                  | 30      | \$46.08 | \$30.28        | -34%   |
| December                                  | 31      | \$48.84 | \$36.23        | -26%   |
| Year End Weighted Average<br>Price \$/BBL |         | \$46.02 | <b>\$28.61</b> | -38%   |

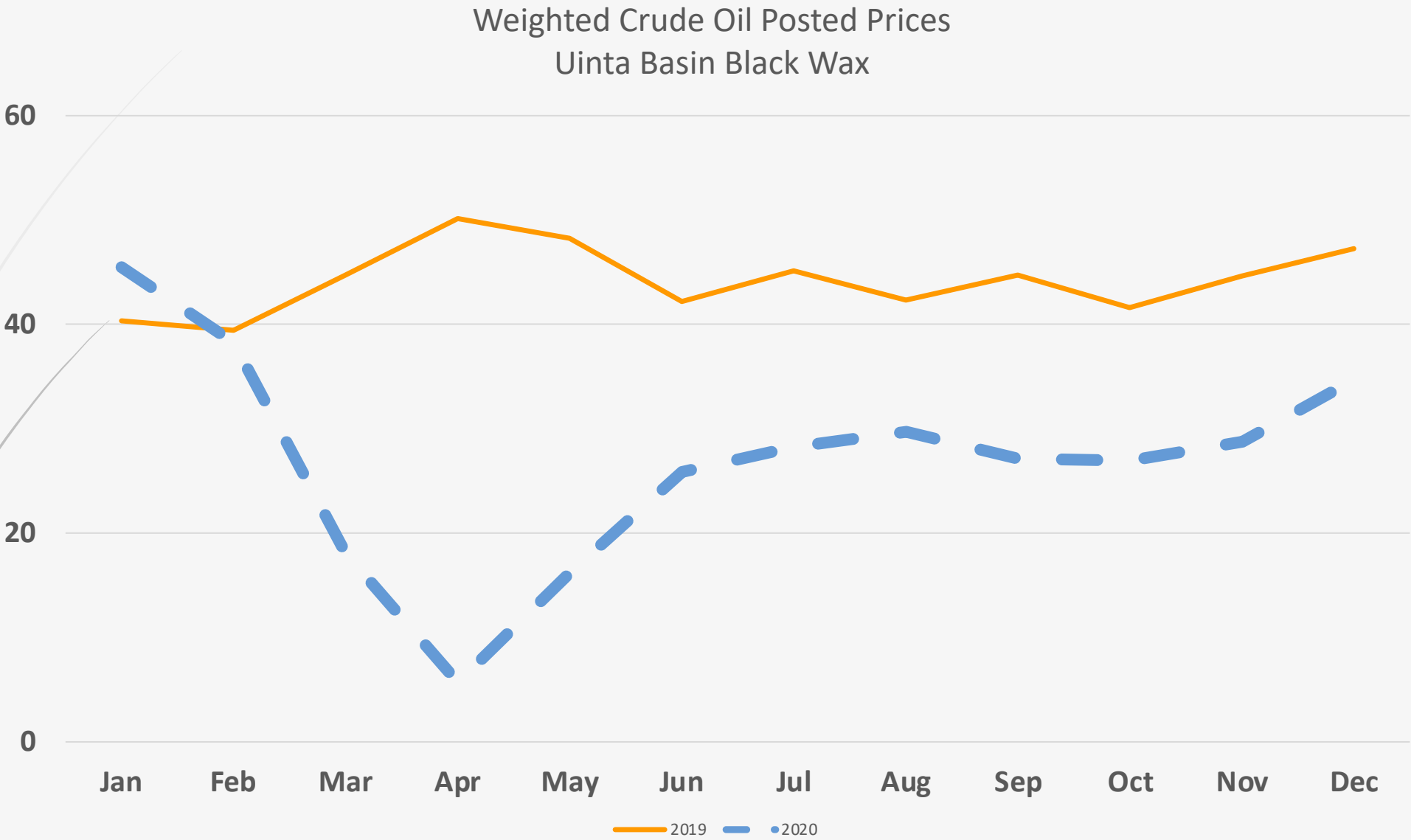
35

### Weighted Crude Oil Posted Prices Paradox Basin

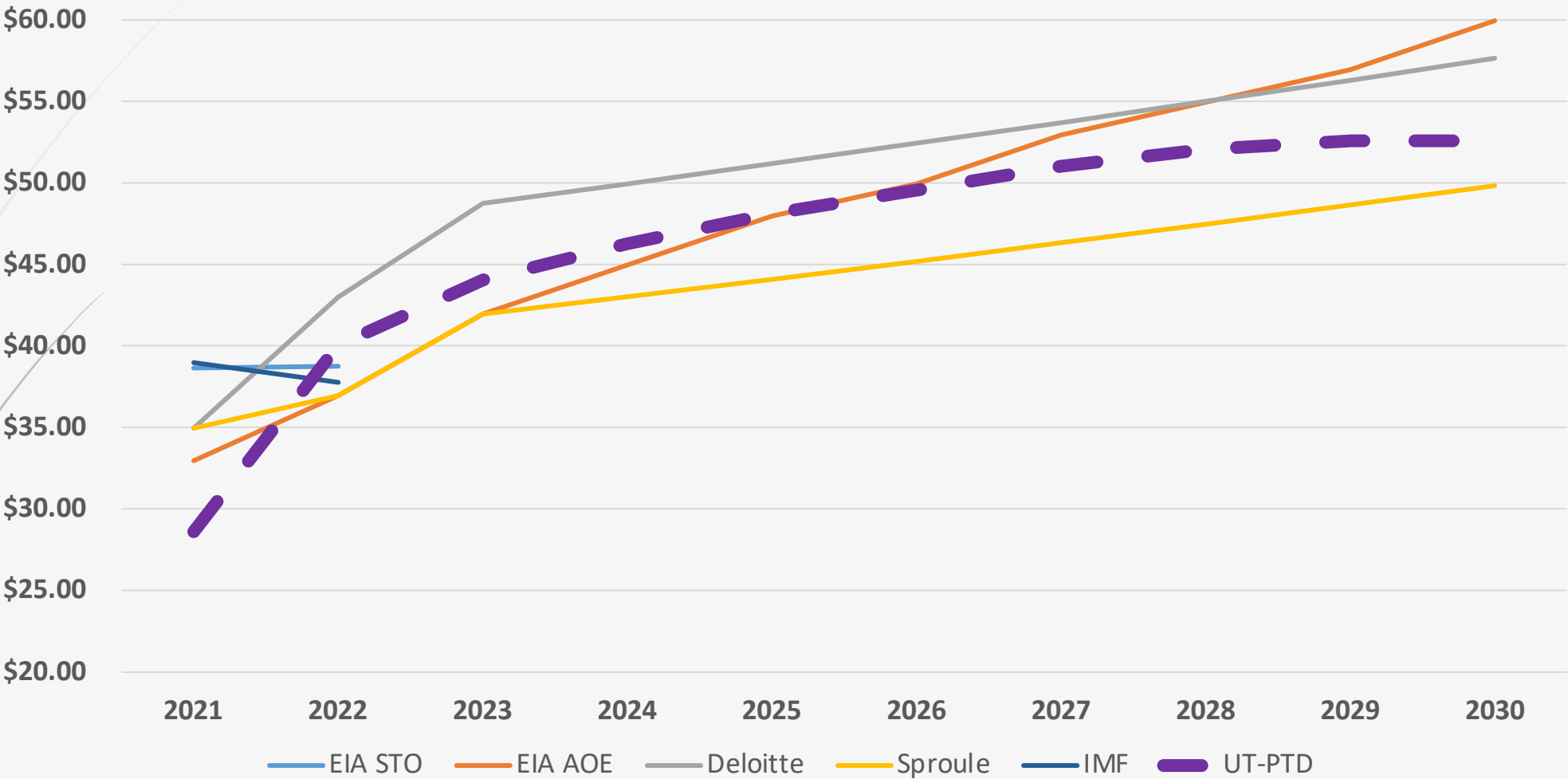


## Uinta Basin Black Wax – “Chevron”

|   | Posting | 2019    | 2020           | %      |
|---|---------|---------|----------------|--------|
| Month                                     | Days    | Price   | Price          | Change |
| January                                   | 31      | \$40.32 | \$45.48        | 13%    |
| February                                  | 29      | \$39.43 | \$38.25        | -3%    |
| March                                     | 31      | \$44.74 | \$18.10        | -60%   |
| April                                     | 30      | \$50.14 | \$5.70         | -89%   |
| May                                       | 31      | \$48.26 | \$16.18        | -66%   |
| June                                      | 30      | \$42.21 | \$25.87        | -39%   |
| July                                      | 31      | \$45.12 | \$28.26        | -37%   |
| August                                    | 31      | \$42.33 | \$29.69        | -30%   |
| September                                 | 30      | \$44.74 | \$27.13        | -39%   |
| October                                   | 31      | \$41.62 | \$26.94        | -35%   |
| November                                  | 30      | \$44.65 | \$28.78        | -36%   |
| December                                  | 31      | \$47.27 | \$34.73        | -27%   |
| Year End Weighted Average<br>Price \$/BBL |         | \$44.24 | <b>\$27.09</b> | -39%   |



Paradox Basin Oil Forecast 2021



## 2021 Oil Price Forecast

### Paradox Basin

Forecast of **10 Year's** Prices

|                                | 2021         | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  |
|--------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Average of 2020 Monthly Prices | <b>28.61</b> |       |       |       |       |       |       |       |       |       |
| Forecast                       |              | 40.05 | 44.06 | 46.26 | 48.11 | 49.56 | 51.04 | 52.06 | 52.58 | 52.58 |
| % Increase / Decrease          |              | 40.0% | 10.0% | 5.0%  | 4.0%  | 3.0%  | 3.0%  | 2.0%  | 1.0%  | 0.0%  |

# Forecast for all Oil Types in Utah

|                  | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Paradox          | 28.61 | 40.05 | 44.06 | 46.26 | 48.11 | 49.56 | 51.04 | 52.06 | 52.58 | 52.58 |
| Black Wax        | 27.09 | 37.93 | 41.72 | 43.80 | 45.56 | 46.92 | 48.33 | 49.30 | 49.79 | 49.79 |
| Yellow Wax       | 27.09 | 37.93 | 41.72 | 43.80 | 45.56 | 46.92 | 48.33 | 49.30 | 49.79 | 49.79 |
| Wyoming Sweet    | 32.84 | 45.98 | 50.57 | 53.10 | 55.23 | 56.88 | 58.59 | 59.76 | 60.36 | 60.36 |
| Western Colorado | 29.69 | 41.57 | 45.72 | 48.01 | 49.93 | 51.43 | 52.97 | 54.03 | 54.57 | 54.57 |



# Contacts

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# Sources for Natural Gas & Oil Price Forecasting

- U.S. EIA – United States Energy Information Administration
- International Monetary Fund
- Bank of America – Merrill Lynch
- NGSA- Natural Gas Supply Association
- NYMEX – (CME Group)
- Sproule Associates
- AJM Deloitte
- Texas Comptroller
- World Bank